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A N

E S S A Y

Thomas Howell.
1828. O N T H E

D I S E A S E S

Most Fatal to I N F A N T S.

To which are added

R U L E S to be observed in the N U R S I N G
of Children :

With a particular View to those who are
brought up by H A N D.

L O N D O N :

Printed for T. C A D E L L, in the Strand,
M D C C L X V I I.

T O
SIR JOHN PRINGLE, BARONET,
PHYSICIAN TO HER MAJESTY,

THIS ESSAY IS INSCRIBED ;

AS A TESTIMONY OF THE
SINCEREST ESTEEM AND GRATITUDE,

BY HIS MOST OBEDIENT

HUMBLE SERVANT,

GEORGE ARMSTRONG.

Hampstead, May 14, 1767.

A N
E S S A Y
O N T H E
D I S E A S E S

Most fatal to I N F A N T S.

IF we take a survey of the different provinces of medicine, we shall readily discover, that one which happens to be of the greatest consequence to society, as the population of every country in a great measure depends upon it, I

B mean

mean that which regards the diseases of infants, has hitherto lain uncultivated, or at least been much neglected. I do not pretend to account for this strange neglect, nor is it to my purpose ; but certain it is, that though the human species can only be preserved by taking proper care of the infant race, which is much more helpless than the young of other animals, and though a much greater number of our species in proportion to the whole, than of any other that we know, dies very young, yet the care of infants, even with regard to medicine, has commonly been left to old women, nurses, and midwives,

so

so that it has been long a common saying in this country, that the best doctor for a child, is an old woman.

I know there are some of the physical tribe who are not fond of practising amongst infants, and I make no scruple to own, that I was of that number myself till within these two or three years, that I may venture to say I have discovered a more successful method of treating their complaints.

The most plausible excuse for declining to practise amongst infants is, that they are not capable

of telling their ailments ; and therefore, say some, it is working in the dark, and while you endeavour to relieve them, perhaps you may do them a mischief, instead of any service. But let me ask, when a person is delirious in a fever, for instance, how is the physician to come at the knowledge of his case ? The man can no more answer properly any question that is put to him, than if he was an infant ; nay, perhaps in his raving he shall mislead you, by mentioning complaints which he really has not ; and yet no physician ever thought of giving up his patient merely on that account.

In

In the Apoplexy, when the patient is struck senseless and speechless all at once, and so remains till by proper means his senses and speech are restored, he can give no information about his illness; and if the physician were to wait for the recovery of his speech before he attempted to give him relief, he would probably lose him; or in case the patient should recover, he would have no great reason to thank his physician. Many other instances might be adduced where the patient can give no satisfactory account of his complaints.

But though infants are not capable of expressing their complaints by words, the very symptoms themselves will, for the most part, speak for them, in so plain a manner as to be easily understood. Thus, for example, if an infant is seized with a violent vomiting and purging, to which they are very subject, is not the disease as evident in them as in grown persons? Or if there is no purging, but on the contrary a costive disposition, do not even the nurses about them know, by the tension and heat of the stomach and bowels, the violent screaming, and drawing up the feet to the hips, that

that they have got the dry belly-ach, as it is called, or, in other words, an obstruction of the bowels? If a child happens to have a Fever, the increased heat of the body, the fulness and quickness of the pulse, together with the whiteness of the tongue, restlessness, &c. are sufficient indications of the disorder it labours under.

These circumstances I mention chiefly to convince those parents and others, who, from a false notion, that there is little or nothing to be done for infants when they are ill, defer calling in proper assistance till it is too late.

Further, if infants are to be deprived of the benefit of medicine, because they are not capable of expressing their complaints by words, they will rarely have the advantage of it till they are five or six years old. For if you ask a boy of three or four what is the matter with him, he will very likely either give you no answer at all, or one that you can make nothing out of. If you ask whether his head akes, perhaps he will say, Yes. If he has a pain in his stomach, Yes. And if you ask him twenty such questions, he will probably answer in the affirmative; whilst perhaps he has no pain
any

any where. It may possibly be sickness that he takes for pain, not yet knowing the proper distinction between these two words. In order therefore to be rightly informed what his real complaints are, you must apply to the parents or nurse for intelligence. Another, who perhaps is afraid of taking physic, will answer, No, to every question that is put to him. And a third will say, I don't know, if you should ask him fifty questions. In all these cases you can get no more information from the patient than if he was a mere speechless infant ; and if you have no other resource, you must still remain in the dark.

But

But we must not suffer our helpless offspring to languish and die because they cannot, or perhaps will not, tell us their ailments. On the contrary, we ought to be the more assiduous to discover their diseases, with the causes of them, in order to procure them speedy relief; as their tender bodies cannot, like those of adults, bear violent and repeated shocks.

But if we will only give ourselves the trouble of examining this subject attentively, we shall soon be convinced, that though a great part of the human species dies in infancy or childhood, and though
many

many of them are cut off by diseases peculiar to infancy, such for example as arise from teething, yet their disorders are not so numerous, nor so hard to be accounted for, as one unacquainted with the subject would at first sight imagine.

In the first place, as to their number. They are not subject to that multitude, both of acute and chronic distempers, which too many grown persons bring upon themselves by intemperance, and others have unfortunately brought upon them by hard labour, violent exercise, and the inclemency of the weather, being exposed to heats, cold, damps, &c. They do not
suffer

suffer from care, or misfortunes in life, which kill many thousands, by bringing on fevers, low spirits, and all sorts of nervous disorders. Most of the hereditary diseases do not appear in infancy, not even in childhood ; such as the gout, the consumption, the palsy. They have likewise nothing to do with the diseases of puberty, which, in the female sex especially, are various, and sometimes mortal. Thus we see their diseases are much fewer in number than those of adults : for excepting what the nurses call inward fits, teething, and the rickets, I do not recollect any particular disorder that infants and children

dren are subject to, which adults are exempted from. For as to convulsions, the thrush, and the watery-gripes, which kill such a number of infants, adults are subject to them as well as they (though I must own not so much) the watery-gripes being only another name for a violent *Diarrhea*.

Flux

Their distempers are not only much fewer in number, than those of grown persons, but I hope from what follows it will evidently appear, that they are more easily accounted for, than perhaps is generally imagined; almost all of them arising from one common cause,

cause, and, if treated in a proper manner, are more easily cured.

It is known from anatomy, that the glands in general, and consequently the glandular secretions, are much larger, in proportion, in children, than in adults. The glands of the mouth, fauces, gullet, stomach, and intestines, but above all the liver and *pancreas*, are constantly pouring out their slimy contents (for the bile appears more slimy in infants than in grown persons) which unless properly evacuated, load their tender bowels, and occasion most of the complaints to which infancy is subject.

ject. For as they cannot of themselves use exercise for promoting digestion, and as their nurses too often neglect to give it them, and to rub them, the contents of their stomach and bowels must stagnate, and either by their viscidities, or acrimony, or both, produce various complaints, and often death itself. And here, I cannot help observing, that this very want of exercise may be one great reason, why a much greater number of our species die in their infancy, than of the young of other animals, even reckoning for the first two or three months only. Some of them, such as puppies, kittens, and rabbits,

soon begin to crawl about, and the mothers encourage them to it by playing with them: colts, calves, and lambs, are forced to use their limbs very soon after the birth, being obliged to follow their dams for nourishment. But to return to infants.

INWARD FITS, as they are called, are in general the first complaint that appears in children, and, as far as I have observed, most, if not all infants, during the first months, are more or less liable to them. The symptoms are these. The child appears as if it was asleep, only the eyelids are not quite closed,

closed, and if you observe them narrowly, you shall see the eyes frequently twinkle, with the white of them turned up. There is a kind of tremulous motion in the muscles of the face and lips, which produces something like a simper or a smile, and sometimes almost the appearance of a laugh. As the disorder increases, the infant's breath seems now and then to stop for a little; the nose becomes pinched, there is a pale circle about the eyes and mouth, which sometimes changes to livid, and comes and goes by turns; the child starts, especially if you go to stir it, tho' never so gently, or if you make any

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noise

noise near it. Thus disturbed, it sighs, or breaks wind, which gives relief for a little, but presently it relapses into the dozing. Sometimes it struggles hard before it can break wind, and seems as if falling into convulsions; but a violent burst of wind from the stomach, or vomiting, or a loud fit of crying, sets all to rights again. As the child increases in strength, these fits are the more apt to go off spontaneously, and by degrees; but in case they do not, and if there is nothing done to remove them, they either degenerate into an almost constant drowsiness, (which is succeeded by a fever and
the

the thrush) or else they terminate in vomitings, sour, curdled, or green stools, the watery-gripes, and convulsions. The thrush indeed very often terminates in these last symptoms. Wherefore as these complaints naturally run into one another, or succeed each other, they may be considered, in a manner, as only different stages of the same disease, and which derive their origin from the same cause. Thus, the inward fits may be looked upon as the first stage of the disorder; the fever, and thrush (when it happens) as the second; the vomitings, sour, curdled, green, or

watery stools, as the third ; and convulsions, as the last.

As to the cause of these complaints, I observed before, that in infants the glandular secretions, which are all more or less glutinous, are much more copious, than in adults. During the time of sucking, the glands of the mouth and *fauces*, being squeezed by the contraction of the muscles, spew out their contents plentifully, which afterwards mixing with the mucus of the gullet and stomach, render the milk of a slimy consistence, by which means it is not so readily absorbed

absorbed into the lacteals ; and as
 in most infants there is too great
 an acidity in the stomach, the milk
 is thereby curdled, which adds to
 the load ; hence sickness and spasms ;
 which being communicated by sym-
 pathy to the nerves of the gullet
 and *fauces*, produce the convulsive
 motions above described, which
 go commonly by the name of in-
 ward fits. The air, likewise,
 which is drawn in during suction,
 mixing with the milk, &c. in the
 stomach, perhaps, contributes to-
 wards increasing the spasms above-
 mentioned. I am the more in-
 duced to attribute these fits to the

causes now assigned, that they always appear immediately after sucking, or feeding; especially if the child has been long at the breast, or fed heartily, and has been laid down to sleep without having first broken wind, which ought never to be done. Another reason which makes me attribute these fits to the above causes, is that nothing relieves them so soon as belching, or vomiting; and the milk or food they throw up, is generally either curdled, or mixed with a large quantity of heavy phlegm. In case they are not relieved by belching or vomiting, the fits

sometimes

sometimes continue a good while, and gradually abate, according as the contents of the stomach are pushed into the intestines; and as soon as the former is pretty well emptied, the child is waked by hunger, cries, and wants the breast; he sucks, and the same process is repeated. Thus, some children for the first weeks are kept almost always in a doze, or seemingly so, especially if the nurses, either thro' laziness or want of skill, do not take care to rouse them when they perceive that it is not a right sleep, and keep them awake at proper intervals. This dozing is reckoned

a bad sign amongst experienced nurses, who look upon it as a fore-runner of the thrush, as indeed it often is ; and therefore when it happens, we ought to be upon our guard, to use the necessary precautions, to be mentioned hereafter, for preventing that disorder.

The THRUSH in infants, generally appears first upon the tongue, and the back part of the roof of the mouth, in the form of small white specks or floughs, which increasing in size and number, run together, and compose a superficial white crust, lining the whole

whole internal surface of the mouth, from the lips to the *Oesophagus*, and from thence is sometimes continued quite through the stomach and intestinal canal to the *Anus*; at least it makes its appearance very plainly in this part. Sometimes, when this white crust falls off, it is succeeded by another, which is thicker, and not so white, and this by a third, &c. if the disease has been neglected, or if the humours are very sharp. The oftner the crust is removed, the worse it becomes, and acquires more of a yellow or brownish cast. It is commonly attended with a fever, and a great heat

heat of the mouth, which becomes often so tender and painful, that the child refuses the breast. Sometimes, however, there is little or no fever to be observed, which happens chiefly when the thrush appears soon after the birth, and before there has been any disorder in the bowels. As to the black thrush, so often mentioned by authors who have written on this distemper, I do not remember to have seen it in infants; and as I have been daily employed amongst them for several years past, I imagine it must rarely occur, otherwise I must have met with it. Indeed the
 air

air of the place where I have practised being remarkably dry, may be one reason why that kind of thrush does not make its appearance ; for I take it always to be a putrid symptom. In a child that I attended, of four years old, who died of a putrid fever, there was several days before its death, a black slough on the tongue, especially towards the root, and several little angry ulcers here and there, on the inside of the lips and cheeks, which perhaps was that which some people call the black thrush. But this was the youngest patient whom I ever observed to have it, and it seemed to be

be a consequence of the fever, and the putrid state of the humours, not the original disease.

If the thrush is not stopt, the contents of the stomach and bowels, becoming still more acrid, produce vomitings, sour, curdled, slimy, or green stools, the WATERY-GRIPES and CONVULSIONS. As to vomiting and green stools, there are few infants who are not subject to them at times; and many children would thrive better if they vomited more than they do, I mean such as are liable to inward fits, without vomiting. But when this
 symptom

symptom becomes violent, and the stools are sour, curdled, slimy, or green, it is full time to administer speedy relief, otherwise the watery-gripes are threatened, and which, for the most part, soon terminate in convulsions and death.

Though these complaints often succeed each other in the manner above described, yet I would not be thought to mean, that they always observe the same progress. Thus, for instance, numbers of children have sour, curdled, slimy, or green stools, without ever having the thrush. Many have the
thrush,

thrush, without the watery-gripes, and some the watery-gripes without having the thrush. Sometimes too, the watery-gripes come suddenly upon them, without any previous disorder, owing either to the nurse, or to the child's having caught a violent cold, some error in diet of the nurse, to the constitution of the air at the time, or the striking in of a rash.

The disease has been called the **WATERY-GRIPES**, from the stools being as thin as water, attended with violent gripes. Sometimes they are colourless, sometimes mixed with little streaks of blood, and sometimes

times of a brownish cast, like a kind of putrid *sanies*, of a very *a filthy matter like blood and Water* strong and offensive smell, but always very thin.

As to the CONVULSIONS, in which most of the diseases of children terminate before they die, they are so well known to every body, that it would be needless to describe them. I take them in general to be owing to a *stimulus* communi-*pricking Irritation* cated to the nerves, either by the acrimony of the contents of the bowels, or by an inflammation in those parts, or in the gums at the time of teething, unless where the
brain

brain is primarily affected. Hence, except in this last case, they are to be considered, properly speaking, as a symptom, not as a disease. Convulsions, for the most part, close the scene in adults, as well as in infants ; but because they die convulsed, we do not therefore say that they die of convulsions, though this is constantly said with regard to children, merely through the ignorance of the persons about them, who do not know what other name to give to the disease. Hence in the weekly bills of mortality, convulsions are always said to sweep off a great many children.

But

But it is necessary to distinguish between the symptomatic and idiopathic convulsions, or those in which the brain seems to be immediately concerned ; because such certainly require a different treatment.

So much for the Diagnostics, and causes of those disorders, which I have observed to be the most fatal to infants. I proceed now to the cure.

To begin with what is called the INWARD FITS. I said before, that as far as I had observed, most, if not all infants, are more or less subject to them from their birth ;

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and this disposition continues till they come to be about three months old. As they are common to most children at this early period of life, and of themselves are not mortal, parents and nurses are not much alarmed at them ; but yet it is necessary to be attentive to them : because if they are not kept under, they become a certain prelude to something worse, which by removing them in time might of course be prevented, and thereby the lives of many infants saved. The best method to prevent their increasing, is never to lay the child down after it has sucked, or been fed, till it has broken wind upward

ward or downwards, two or three times, the oftner the better. For this purpose, instead of laying it down on the bed, or cradle, let the nurse hold it sloping in her arms, dandle it, pat its back, and rub the palms of its hands pretty smartly, which, generally speaking, will have the desired effect. But if these means should not succeed, I would recommend a gentle puke, to be repeated from time to time, as occasion requires. I am fully convinced from the practice which I have had amongst children, that if such a puke were given to infants soon after they are born, instead of a purge, and re-

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peated

peated occasionally, it would be of much more service, and fatigue them a great deal less. Nay, if they are apt to be sick, which very often happens, and is easily known by their frequent vomiting or retching, or change of colour, turning commonly pale or wan when the stomach is sick, I am very certain that a puke is the quickest and most effectual remedy. A few drops of the anti-monial wine, *viz.* from five to ten, will generally be sufficient for a young infant ; and that medicine has this advantage, that it commonly operates both ways, and by that means thoroughly cleanses the bowels.

bowels. If it operates once, or twice at most, it is sufficient, and instead of straining them much at a time, it is better to repeat the puke again soon, if necessary. I have given five drops to children a few days after their birth, without finding it too strong for them, and I seldom give a larger dose till they are about a month old, repeating it within half an hour, in case the first has not operated. After the first month, you may give seven, eight, nine, or ten drops, according to the child's strength, or the urgency of the case, and at three or four months old, from ten to fifteen. But I always begin

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with

with a small dose, for children differ full as much in that respect as grown persons, some of them, being much easier vomited than others. Besides twenty drops will very often vomit a child of three or four years old, that has not been accustomed to this medicine: but if there is occasion to repeat it soon afterwards, the quantity must be increased.

Though this has the character of being a rough medicine, which perhaps may make some afraid to give it to those tender patients, I can assure them I have given it to many children at different ages,
some

some of them, as has just been observed, very young, and to the same children at different times, yet I never once knew it to have any bad effect, but much the contrary.

But there is one rule which ought constantly to be observed in administering vomits to infants, as well as adults, that is, never to give them when the patient is constive, without first opening the body by means of a gentle purge, or glyster. The not attending to this precaution, has brought an imputation upon emetics, when

the fault only lay in neglecting this rule.

Next to the above method, there is nothing that contributes more to make infants, during the first months, thriving and healthy, than preserving them from catching cold, by keeping them in a proper warmth, as dry as possible, and rubbing their limbs and belly frequently, with a warm hand, before the fire. A person unused to the management of children, would be surprized to see how soon they delight in this exercise, and how strongly they express the comfort it gives them.

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In case the above directions are observed ; that is to say, provided the child be never laid down to sleep, after it has been suckled or fed, till it breaks wind upwards or downwards, two or three times, and if that cannot be procured by the easy means above directed, a gentle puke be given, of the antimonial wine, above recommended ; if it is preserved from catching cold, kept as dry as possible, and the limbs and belly rubbed frequently, and for a good while together, with a warm hand before the fire ; if it has been born to the full time, of healthy parents, is not remarkably weakly,
nor

nor subject to rashes, and is suckled by a healthy nurse, careful of her diet, or if the child is brought up by the hand with proper nourishment, we need not be much afraid either of the Thrush, green stools, the water-gripes, or even of Convulsions, except the idiopathic, till the time of teething.

With regard to the cure of the THRUSH, whatever kind it is of, and at what time soever it happens, as it appears to be chiefly owing to a foulness of the stomach and bowels, attended for the most part with more or less of a fever, and always makes its first appearance

ance in the mouth, proceeding gradually downwards, the most rational method to me seemed, first to empty the stomach, and then the intestines; for by these means the first passages being freed of their acrid contents, I imagined that the fever would subside of course; and indeed this I have found by experience to be the case. For this intention I have observed nothing to succeed better than the antimonial wine just mentioned, given as a puke, more or less, according to the strength of the patient, and repeated as the exigency of the case required.

If

If the child is costive, a glyster, or two or three grains of the *pulvis jallap*, rubbed with a double quantity of sugar, will be necessary to be given first, and this must likewise be repeated occasionally.

As to topical applications, the best I know is a solution of the white vitriol, in common water, in barley water, or in the pectoral decoction, about half a scruple to eight ounces, at first. If that should be too weak, it will be an easy matter to make it stronger by degrees. A linnen rag is to be dipped in it a little warm, and either with the finger, or tied on a
 bit

bit of stick, the child's mouth must be rubbed with it, three or four times in four and twenty hours, according to the urgency of the case, or as the tenderness of the parts will admit. If he swallows a little now and then, a tea-spoonful or so, at a time, so much the better, as it helps to cleanse the stomach and bowels at the same time.

The white vitriol being so generally useful in collyriums, and of so cleansing a nature, made me first try it in a gargle, and I have found it succeed so well both in infants and adults, that I seldom
use

use any other, except where the tongue is dry and parched. As it cleanses not only the mouth and throat, but likewise the stomach, this quantity makes it doubly useful to children who have not sense to spit out whatever the mouth is washed with. By means of this gargle alone, I lately cured the worst canker in the mouth that I ever saw, in a boy of five years old. The tongue was covered with a thick white crust, like the thrush, and the inside of the cheeks and the gums were full of angry pustules, and little fungous excrescences, like warts. The saliva drivelled from him, as if he had
 been

been in a salivation ; and his mouth and throat were so tender, that though he was very hungry, it was a difficult matter to force him to take any nourishment. As he was not feverish, and had no other complaint besides the above-mentioned, I ordered nothing else for him at the time besides the gargle, and he got quite well in a very few days.

When a child is seized with a PURGING, whether the stools are sour, curdled, slimy, green, or watery, the common practice is, to give small doses of rhubarb, mixed with Gascoigne's powder, a
 3 little

*der of Crabs
us, or Testa
s Powders*

 little grated nutmeg, or the *pulvis e*
chelis cancer ; and some prefer *magne-*
nesia, either alone, or mixed with
 the *pulvis e chelis*, or the like, ac-
 cording as the stools are more or
 less loose. As to the rhubarb, I
 have reason to suspect, that some-
 times it may impose upon us, by
 giving its own colour to the stools,
 while they remain in other respects
 as before. Besides, rhubarb, to
 some grown persons is very grip-
 ing, and therefore we ought to be
 particularly careful in observing
 whether it has not the same effect
 upon children. I look upon the
magnesia as a safer medicine ; but a
 better than either, as I am con-
 vinced

vinced from repeated experience, is such a puke as was mentioned before. This is going to the root of the complaint at once. For, as the green stools are owing to the too great quantity and acrimony of the bile, and the sour, curdled, and slimy ones, to a load of acid phlegm in the *primæ viæ*, the readiest way of relieving the patient is, by carrying off that load as soon as possible. For if you endeavour, as most authors advise, by antacids and absorbents, first to correct the acrimony of the peccant matter, as they stifle it, before you attempt to expel it, when

*First Passage
Stomach.*

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the case is urgent, as very often happens, it is odds that you never have an opportunity to make use of evacuants. But by unloading the stomach and bowels with a puke, which, generally speaking, in these cases, operates both ways, you give immediate relief, and what remains may be corrected, and carried off, by means of the absorbent and purging medicines above mentioned, in case the child has not strength sufficient to bear the puke to be repeated; for it often happens, that parents, as well as nurses, neglect to call in proper assistance in time, from the too prevalent

prevalent notion, as I observed before, that there is little or nothing to be done for infants, by which means they are sometimes almost in extremity, when we are first called to them. But if the child's strength will bear it, the best way is to repeat the antimonial wine every five or six hours, till the stools begin visibly to change for the better, and then every eight or ten hours, till they return to their natural colour and consistence. The emetic operating upon the phlegm and bile, generally makes the child very sick at first, but when once that load is brought up,

it seems presently relieved; and it very seldom happens, that the repetition of the same dose ever makes it so sick again : wherefore the dose must be increased from time to time, if the symptoms do not abate to your wish. I have seen children so bad in the watery-gripes, that they seemed to be falling into convulsions, and the most desperate circumstances, who yet were by this method, in a few hours, restored to a state of safety, which I am fully assured would not have happened by the common method of treatment. Sometimes indeed, a child who happens to be uncommonly

uncommonly strong, whose stomach and bowels, stimulated by their acrid contents, have emptied themselves pretty thoroughly, will then receive considerable benefit from the antacid and absorbent medicines, and especially from the chalk julep. But to throw in these medicines before the bowels are in a good measure freed from their stimulating load, is counteracting nature, instead of assisting her, and allows the disease to gain ground unobserved, while in the mean time, the child grows gradually weaker, and at last has not strength to bear the necessary evacuations

By means of the last mentioned antacid and absorbent medicines, together with astringents, given by the mouth, and likewise in the form of glysters, I have frequently seen the looseness checked for some time, but then the feverish symptoms have increased, and the purging returning with double violence, has quickly carried off the patient. But ever since I have practised this method of treating these complaints of the bowels by repeated pukes, I have seldom had occasion to give any thing else, except when the child has been griped and restless after the first passages

passages were cleansed, a gentle
 paregoric, such as a dram of the
syr. papav. rheados, in a large spoon-
 ful of the fennel, or weak cinna-
 mon water; repeated every three
 or four hours, till the rest is pro-
 cured.

*Syrup of
Poppies*

When the stools smelt very sour,
 were curdled, or green, I have
 lately given three or four drops of
 the *Lixivium Tartari*, with the
 emetic; and afterwards, between
 whiles, the same quantity in a little
 water, sweetened with sugar, or
 syrup, with very good success.
 When the milk is apt to curdle on

the stomach, this medicine is particularly useful, and as far as I have seen, it is perfectly harmless.

As some children are very liable to have returns of these complaints for the first two or three months, the same method must be repeated occasionally. But here I must mention again, what I said before in the cure of inward fits, and of the thrush, that the antimonial pukes are the best in these cases also; as they operate most effectually upon the phlegm and bile, and generally evacuate both ways.

ways. Besides, whether by carrying off the acrid bile, or by some other power, they certainly contribute to abate the fever; which is a constant and dangerous attendant of these disorders, when violent; and I am afraid such tender patients would not bear bleeding. The antimonial emetics (viz. the antimonial wine, or a very weak * solution of the emetic Tartar, which

* Note. The solution I commonly use is, one grain of emetic Tartar, dissolved in three ounces of water, and sweetened with a little syrup. To very young infants, I give a tea-spoonful; to one of three months, two; and so on, repeating it in the same manner as the antimonial wine. As far as I can

which may be given as safely as the other if properly dosed) have likewise this advantage, that, not being nauseous, they are easily swallowed, and stay longer upon the stomach than the *ipecacuanha*, which can hardly be forced down in any preparation; and when it gets down, it stays too short a while to produce any considerable effect. And this reminds me of a circumstance necessary to be mentioned, which is, that when the watery-gripes

I can judge from the experience I have had of it, a middling tea-spoonful of this solution, is equal to about five drops of the wine.

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are attended with a vomiting, which is often the case, the puke should be given in small quantities, frequently repeated, till the stomach is well cleansed.

In this method I have, for upwards of two years, treated these complaints of children: and with such success, that I can freely recommend it to others. But at the same time, I am not so sanguine as to consider it as infallible, being certain that it sometimes must fail, in the same manner as does the bark in the cure of intermittents. I shall mention one case which I met

met with a little while before I fell upon this method, wherein probably it would not have succeeded; and as more of that kind may now and then occur, it may be of use to give a short account of it.

A boy, about six months old, was seized with a vomiting and purging, attended with some degree of fever, great inquietude, and he seemed to be threatened with convulsions. What he vomited was chiefly the milk which he had sucked; his stools at first were greenish,

greenish, but soon turned watery; and so continued to the last. He had been ill six days before I saw him. I ordered him first a few grains of the powder of *ipecacuanha*, which was no sooner swallowed, than it came up again. After this he had the chalk julep, and starch glysters, with a few drops of the *tinctura thebaica*, which relieved him from time to time; but the symptoms still returning with great violence, he died.

Upon opening the body, I found the stomach, and the whole intestinal canal, from the *pylorus* to
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the *anus*, perfectly empty, which in some measure accounted for one symptom during the latter part of his illness; which was, that his navel seemed almost shrunk into his back. The vomiting and purging had lasted ten days, which is much longer than the common watery-gripes ever do. There were no signs of inflammation anywhere in the stomach or intestines, and the liver, spleen, and pancreas, were all of the natural size and appearance. I was not a little surprized to see all these parts look so well, and was just going to finish my enquiry, when I observed,

served, that the right kidney was larger than natural, and of a more livid colour. I therefore took it out, and cut through the convex side of it into the *pelvis*, which I found almost full of gravel, some of which was concreted, and had taken the form of that part of the *pelvis* where it was lodged. The kidney itself bore the marks of an inflammation, and that I suppose had occasioned the whole complaint, by bringing on the fever, and affecting the neighbouring *viscera*. The left kidney was not swelled, nor did it seem to have been inflamed, though it like-

wife contained gravel, but in a smaller quantity.

Now here was a case where the above method could not succeed, (unless from the febrifuge quality of the medicine) nor perhaps any other; but it is probable that instances of this kind very seldom occur in such young patients. If I had suspected gravel, I should have tried the *semicupium*; but as he never had any stoppage in making water all the time, I had no suspicion of the real cause of the disease. Upon asking the child's mother if her husband or herself

herself were subject to the gravel; she told me she was, and had bred the child with it, as she expressed herself.

In a case of the watery-gripes, wherein it was tried last summer, it did not prove effectual, though for two or three days at first the child seemed to be the better for it. But upon examining the body, after death, it appeared, that, as far as we could judge, the case was really incurable. The body was opened by Dr. Hunter, who, upon handling the stomach gently, found the coats of it give way, as if they

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had been reduced by maceration to almost a glutinous consistence, and the small guts, their whole length, were in the same tender condition. In the mean time, there was no appearance, either of inflammation or mortification, and the smell was less offensive than is usual in dead subjects. The texture of the great intestines seemed sufficiently firm, and the rest of the abdominal viscera had all the natural appearance. I think it will be allowed, that its not succeeding in this case could bring no disgrace upon the medicine; the flimsy structure of the stomach
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and small intestines being sufficient to prevent the success of any medicine whatever.

I come now to the article of CONVULSIONS, which I distinguished before into two sorts, *viz.* the *symptomatic* (or those which are owing to a *stimulus*, communicated to the nerves by an irritation in the stomach or bowels, or the gums in time of teething, &c. which are by much the most frequent) and the *idiopathic*, in which the brain is primarily affected. As for the first, whatever removes the *stimulus* above-mentioned, or, in other

words whatever clears the bowels of their acrid contents, or renders these contents mild and inoffensive, will of course cure the Convulsions. Wherefore, if the child is costive, the best way is to begin with a glyster, and afterwards give a puke, which must be repeated occasionally, and the belly kept open between whiles with the magnesia, or small quantities of rhubarb, mixed with absorbents. Sometimes they are owing to the striking in of a Rash, or to a sudden stopping of that discharge behind the ears, which is so salutary to infants, from the child's having caught cold ; in
both

both which cases the bowels are commonly affected, and must be particularly regarded, in the manner just now recommended. But, besides, it will be necessary to apply a blister between the shoulders, or a couple behind the ears. The warm bath too is sometimes of great service here.

By attentively observing the above circumstances and directions, the symptomatic convulsions, if taken in time, may frequently be cured. But the idiopathic are much harder to manage. It is, however, a great happiness that these do not so often occur. All that I shall say of

them at present is, that I think they may for the most part be distinguished from the other sort by the following circumstances. When a child is seized with Convulsions, without having any complaint in the bowels, or symptoms of teething, especially if they happen before the teeth shoot into the gums, and if the child has had no rash, nor the discharge behind the ears dried up, we may reasonably suppose them to be *idiopathic*.

I was called to a case of this kind about a year ago. A child about five weeks old, very healthy
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and thriving from the birth, was suddenly seized with Convulsions. He had no complaint in his bowels, but however the nurse gave him a glyster. It consisted only of broth and oil, and operated but once ; if it had been stronger, perhaps it might have had a better effect. The child was taken ill about five in the afternoon, but they deferred sending for me till eight o'clock next morning, when he was just a dying. Now, as the child had always been remarkably well in his bowels, and, even after he was seized with fits, had no sickness, nor purging, nor swell-

ling in the belly, and was too young for teething, I referred this case of Convulsions to the *idiopathic*. Upon enquiring of the mother, who suckled him, whether she knew of any thing that could affect the child so suddenly, and in so violent a manner, she told me that the evening before she had been surprized and overjoyed at the unexpected arrival of her husband, who had been absent for several months, and that she apprehended this incident might have had a bad effect upon her milk. Perhaps sharp glysters, the *Semicupium*, blistering the legs or feet,

feet, or behind the ears, to procure a discharge there, may be of use in such cases. But this is only conjecture; and until I can recommend a successful way of treating them from experience, I shall say no more about them.

Thus much concerning the diseases most incident and fatal to infants, during the first few months after the birth, *viz.* Inward Fits, the Thrush, loose, sour, curdled, or green stools, the Watery-gripes, and Convulsions.

I come next to TEETHING, which, in the same manner as was observed on convulsions, is said to carry off a much greater number of children than it actually does; for almost all children that die while they are about teeth, are said to die of teething. Children who are seized suddenly with strong convulsions, which quickly carry them off while they are cutting their teeth, may often be said to die of teething; but we cannot be sure that this is always the case neither, as there are instances of the same kind of convulsions occurring both before and after the usual
time

time of cutting the teeth ; witness the case of the boy above-mentioned. But except in such cases, which seldom happen, teething, of itself, is not properly a disease, because though many children die while they are breeding and cutting their teeth, yet there are several who breed and cut them without any bad symptom. Dr. CADOGAN, in his ingenious ESSAY upon NURSING, &c. p. 31, makes the following reflections : “ Breeding teeth has been thought to be, and is, fatal to many children ; but I am confident this is not from nature ; for it is no disease,

“ disease, or we could not be well
 “ in health till one or two and
 “ twenty, or later. Teeth are
 “ breeding the greatest part of
 “ that time, and it is my opinion
 “ the last teeth give more pain
 “ than the first, as the bones
 “ and gums they are to
 “ pierce, are grown more firm
 “ and hard. But whatever fever,
 “ fits, or other dangerous symp-
 “ toms, seem to attend this ope-
 “ ration of nature, healthy chil-
 “ dren have sometimes bred their
 “ teeth without any such bad ac-
 “ cidents ; which ought to incline
 “ us to suspect the evil not to be
 “ natural,

“ natural, but rather the effect of
 “ too great a fulness, or the cor-
 “ rupt humours of the body put
 “ into agitation by the stimulating
 “ pain the tooth causes in break-
 “ ing its way out. This, I be-
 “ lieve, never happens without
 “ some pain, and possibly a little
 “ fever; but if the blood and
 “ juices be perfectly sweet and
 “ good, and there be not too great
 “ a redundancy of them, both will
 “ be but slight, and pass off im-
 “ perceptibly without any bad
 “ consequence whatever.”

Thus we see it is the Doctor's
 opinion, that the dangers which
 attend

attend teething are owing to too great a fulness, or the corrupt humours of the body being put into agitation by the stimulating pain the tooth causes in breaking its way out. But, whether there is too great a fulness, or the humours are corrupted, proper evacuations must be of the greatest service; and in general we find, that children who drivel plentifully, and are loose in their body, while they are about teeth, cut them the easiest. Whenever therefore it happens, either from the child's having got a cold, or from some error in diet, or accidentally catching a fever, that these evacuations are stopt, we

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must

must endeavour to restore them as soon as possible. For this purpose the best way, if the child is constive, is to open the body with a glyster, or a gentle dose of physic, if the case is not urgent, and afterwards give a puke ; repeating it as occasion requires. This method I have tried several times with success, and even when there was a fever attending the teething.

Towards the end of August and the beginning of September was a twelvemonth, a fever was frequent here amongst children ; and as several of them happened to be about teething at the time, the distemper

temper was looked upon by some as entirely owing to that cause. But whether it was properly what they call a Teething Fever or not, to those who cut teeth during the time of it, it was certainly as bad; and would, no doubt, have been considered as such, if they had died of it. The fever was at first very high, but in all of them, after a day or two, it remitted, that is, it grew sensibly worse in the evening, and better towards morning; and in some few, after having lasted in this shape about a week, it came to an intermission. Most of these children were threatened with fits, and some had slight

convulsions. As none of those whom I had the care of were constive, but most of them inclined the other way, and some had a purging, I puked them all as soon as I was called, which seemed to have a good effect. Afterwards I gave them small alterative doses of the antimonial wine, or of a very weak solution of the emetic tartar, with, or without, the *pulvis e chelis*, according to the state of the bowels, made up into a mixture, a dose of which was to be taken every four, five, or six hours, as the violence of the symptoms, and the age or strength of the patient required; and they all

recovered. Even where the fever intermitted they also got well, by pursuing the same method; only every now and then, according as the child could bear it, I increased the dose of the alterative so as to make it puke a little, in which operation it always discharged more or less bile.

But I must not dismiss this subject without observing that when the fever runs high, and the teeth are near cutting, especially the grinders, which, on account of their bluntness, do not pierce the gum so readily, it will be proper
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to use the fleem. This I have sometimes seen give immediate relief, but have oftner been disappointed. However, in the above circumstances, if the child is convulsed, and the jaw not locked, it is certainly right to try it.

Children, while they are about Teeth, are frequently subject to various sorts of irruptions, commonly called a RASH. Sometimes it spreads all over them, and appears very much like the itch. Sometimes it is confined to the head and face, appearing in the

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form

form of very large scabs, or blotches, a good deal like the small pox, just after they are turned. Whatever sort it is of, if the child is otherwise well, and not costive, it is perhaps the most prudent way not to meddle with it. When the face has been much disfigured by it, which has made the parents impatient to have something done, I have seen very good effects from a small blister, applied between the shoulders, and kept running for some time. But I never durst venture to apply any thing to the scabs themselves.

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They are likewise subject to the RASH soon after they are born, which upon their catching cold, is apt to strike in, and fall upon the bowels, as I hinted before, occasioning vomitings, green stools, the watery-gripes, and convulsions. In this case, besides the method recommended in these complaints, I have seen the warm bath of singular service; and very good effects from a blister.

I was sent for last summer to a case of this kind. A child about six weeks old was seized with the watery-gripes from the striking in

of a Rash. She had been ill upwards of two days before I was called to her, and when I first saw her, she seemed to be just dying. Her face was livid and contracted, her eyes fixed and glazed, and her hands clenched with convulsions. As I understood that her illness was owing to the striking in of a Rash, I ordered her to be put into warm water as soon as possible, as high as the breast; the belly and limbs to be well rubbed with the hand all the while she was in the water. She had not been in above a few minutes, when a fine glow came upon the countenance, the eyes recovered

covered their lustre, and she looked about her as if nothing had ailed her. I had her kept in the bath for a quarter of an hour, or longer, after which she was wrapt up in warm flannel, and put to bed, where she sweated plentifully, and slept several hours. After the sweat was over, a blister was applied between her shoulders, and though the Rash did not return, she very soon got well.

Besides the diseases treated of above, there are some others, such as the SMALL-POX, MEASLES, and CHIN-COUGH, which, as

is too well known, carry off numbers of children. But since these distempers, especially the two first, are more fatal to grown persons, than to children or infants, they cannot properly be considered as peculiar to childhood. However, as the Small-Pox was very frequent here last spring, and the beginning of summer, I had several opportunities of trying the antimonial solution, both in children and adults, and in the beginning of the disease, where the stomach was foul, it had a remarkable good effect. But when the fever was high, I always made it a rule to
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take away some blood first ; and if the body was costive, to give an opening glyster.

I have not had occasion to try it in the MEASLES, most of my patients in that distemper lately, having had so favourable a sort, that they readily got well in the common method of treating it.

But in the CHIN-COUGH, I have tried it with very good success ; and from the experience I have had of it, have reason to think, that if it is given in time, it will often prevent that obstinate complaint

complaint from arriving at such a height, or continuing so long as it commonly does. In this disease, I give the solution once or twice a day, if the child can bear it, in a sufficient quantity to occasion a retching, and thereby bring up the phlegm, which children always swallow, instead of spitting it up. If the Cough happens to be worse at any particular time of the day, which is sometimes the case, I order it to be given about an hour before the paroxysm is expected, and if it is worse in the night, about an hour before bed-time.

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When the violence of the Cough is over, it will be sufficient to give the medicine once or twice a week, according as the phlegm gathers, less or more, which can easily be judged of, not only by the quantity thrown up during the coughing, but likewise by its rattling in the throat between the paroxysms.

Since the beginning of last year, I have attended fourteen patients in the HOOPING-COUGH, all children, but one. Some of them had it to a very severe degree; and one child, a little under two years of age, had, at the beginning, a remittent

mittent fever, and fits attending the Cough. I treated them in the manner abovementioned, with the antimonial mixture ; and they all got very well over the disease, except one. This was a child about two years and a half old, who had been violently seized with the Hooping-Cough, while at the same time she was extremely ill of the measles. She had been almost a month ill before I first saw her ; when she was sent from town to Hampstead, for change of air. She had been let blood once, but sparingly ; but as she had been ill so long, and I found her so much weakened,

weakened, I durst not venture to repeat it, though I was sorry afterwards I did not ; because on opening her body, I found the lungs, especially in the back and lower part, had been a good deal inflamed, but without any appearance of suppuration, or mortification. She was only six days under my care ; for the weather happening to be very cold at that time, with a bleak north-east wind, to which her lodgings were much exposed, and finding her grow weaker every day, I advised the parents to take her back
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to town, where she died within two or three days afterwards.

I had lately an opportunity of trying both the antimonial mixture by way of puke, and vomits compounded of the ipecacuan wine and oxymel of squills, in a boy about eight years old, who was ill of the Hooping-Cough: and it plainly appeared to every body about him, that though the latter cleansed the stomach very well of the phlegm, yet it had not so good an effect upon the Cough as the former, neither did
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he perspire so plentifully after it.

Both kinds were repeated several times, and the event was always in favour of the antimonial vomit.

After all, the Hooping-Cough is a very obstinate complaint, and even the change of air, so much celebrated in this disease, though in some patients it seems to have a remarkable good effect, yet to others it affords no sensible relief.

The RICKETS makes its first appearance in childhood ; but the effects

effects of it often continue through life. Though it lays the foundation of various complaints and deformities, yet not many die of it, and therefore it cannot be reckoned amongst the fatal diseases of infants. Indeed the air where I live, being so very dry, I have seldom met with it unless amongst nurse children, that have been sent out of London with it upon them; and when I have, a few gentle doses of rhubarb, keeping the child dry and clean, and rubbing it carefully all over, two or three times a day, together with the cold bath, have generally removed it in a short time.

The last disease I have to take notice of, is the SCROFULA, or KING'S EVIL, which I believe, for the most part, begins first to appear in childhood, but not always. Like the Rickets, it sometimes proves a source of bad health through life, but is not very often fatal to children. It is generally supposed that the *pancreas* and mesenteric glands are commonly the first affected in this distemper; whence proceed indigestion, and pains of the belly, attended with a swelling and hardness, before the disease makes its appearance outwardly. Hence whatever is of

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service to cleanse the *primæ viæ*, must be beneficial here, especially in the beginning; and to answer this intention, I should expect more from the solution above recommended, than from any other medicine I know. But as I have not had sufficient opportunities of trying it in strumous cases, I shall not indulge myself in conjectures concerning its efficacy in disorders of this kind.

R U L E S

To be observed in the

NURSING OF CHILDREN:

With a particular View to those
who are brought up *by Hand*.

THOUGH I am no advocate for bringing children up by hand, as it is called, when they can be properly suckled; yet as some mothers for want of health, or sufficient vigour of constitution, are not able to suckle their infants themselves, nor willing to commit them to other hands for that purpose: As there are some whose

nipples are too small, or perhaps so ill-formed, that the child cannot lay hold of them; and some whose situation in life will not allow them to perform this duty : not to mention, besides, that there are infants who will not take the breast : I thought it might not be impertinent to offer a few directions about *dry-nursing* ; for which I reckon myself the better qualified, that I have had some experience of it in my own family.

But though, as I just now observed, I do not advise dry nursing of infants, when they can be properly suckled, yet I would not have

parents to be discouraged from trying it when it becomes requisite, being firmly persuaded, that if a child is born pretty strong and healthy, it had better be brought up by hand in the method to be afterwards explained, than suckled by an ailing nurse, or one that has not a sufficient quantity of milk. For when I talk of a child's being properly suckled, I mean by a nurse who is healthy, sober, good tempered, cleanly, careful, and has plenty of good milk. A wet nurse ought likewise to have pretty strong nerves ; for if they are weak, the least surprize has a bad effect upon

the milk ; or if the child happens to be suddenly taken ill, from the fright and anxiety, the milk is sometimes quickly dried up, when perhaps the poor infant has the most occasion for it. For this reason some mothers, who are very fond of their children, make but bad wet nurses, though well enough qualified for it in other respects.

Again, though the child may keep well and thriving, the nurse may be taken ill, in which case the infant of course must suffer, and probably catches the distemper, if the disease is infectious ; at least it
must

must be suddenly weaned, perhaps when it is about teething, which may have fatal effects.

In this case you will say, another nurse must be found. But if it is the mother that suckles the child, she will be loth to part with it; and you must not be too positive with her, nor tell her the danger she and the child are in, for fear of shocking her, and thereby increasing the danger. Besides, you are not certain the child will take to another breast; for some of them begin very early to know their nurse, and will not be suckled by

another, without great difficulty. Farther, a good wet nurse is not always readily to be had, especially in or near great cities, where so many of them are given to drinking and other vices, and the worst of them will fall upon means of procuring a good character from some hand or other. And hence some parents, when the mother cannot suckle the child herself, prefer the bringing it up by hand, rather than run the risk of getting a bad wet nurse. Again, if it should not be the mother, but a wet nurse that suckles the child, and is taken ill, the infant must still be weaned, and the

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weaning will be attended with the inconveniencies just now mentioned.

Every mother whose health and strength will permit, and who has good nipples, ought, for her own sake, to suckle her infant during the first few weeks, in order to prevent the milk-fever, inflammations and suppurations of the breasts; the first of which is dangerous, and the two last very painful, tedious and disagreeable. For after the lacteal tubes have been repeatedly emptied by sucking, the milk may be dried up with more ease and safety. Besides, the suckling may agree better

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ter with the mother than she expected ; and finding this to be the case, she may be encouraged to continue it. It is true that women who suckle, upon catching cold in their lying-in, or committing some trespass in diet or the like, are sometimes subject to the complaints abovementioned, but they are not near so liable to the milk-fever at least as these who do not.

There are two ways of feeding children who are bred up by the hand ; the one is by means of a horn, and the other is with a boat or spoon. They both have their
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advocates, but the latter, in my humble opinion, is preferable.

The horn made use of for sucking, is a small polished cow's horn, which will hold about a gill and a half. The small end of it is perforated, and has a notch round it to which are fastened two small bits of parchment, shaped like the tip of the finger of a glove, and sewed together in such a manner, as that the food poured into the horn can be sucked through between the stitches. This appears to be a very simple and ingenious contrivance, and is admired by some, who look
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upon it as a kind of artificial nipple ; and it might very well be considered as such, if we had but the breast-milk to convey through it. Or if we could discover any food of the same thinness with the milk, and as nourishing as it is, the horn might still answer. But as a discovery of this kind is not to be expected, and the food which the child sucks through this artificial nipple must be thin, in order to pass between the stitches, there requires a larger quantity of it to nourish the child, and hence its stomach and bowels are too much relaxed, whereby it is in danger of falling into the watery gripes, as was the case

case with two of mine, which were fed for some time in that way.

The first was suckled by her mother for seven weeks, or thereabouts, at which time the milk dried up so much, that it was found necessary to wean her. During the time that she sucked, she was fed in the night with the horn, and afterwards with it alone, till she was seven or eight months old. But though she sucked her food very well through it, yet it did not seem to satisfy her, which made her often fretful. She was frequently griped, much troubled with wind, almost always loose in her body,

body, and made a great quantity of urine.

Afterwards, when the horn came to be left off, and she was fed with the boat, and with thicker victuals, the child became more quiet and thriving every day.

The next had been suckled four weeks, when her mother, by catching cold, was seized with a violent cough, and entirely lost her appetite, for which reasons it was thought proper to wean the child, and she was fed with the horn, in the same manner as the other, which

which had the same effect, of making her much afflicted with wind, and loose in her body. At last she was taken ill of the watery gripes, which had almost killed her. However, by changing her diet, feeding her with the boat, the use of proper medicines, and the asses milk, she at last recovered, and became very thriving likewise.

The horn having succeeded so ill, I made no farther trial of it, and the last child I had was fed with the boat. She likewise was suckled almost four weeks, when her mother was again seized with a violent cough, and as she was

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not willing to have a wet nurse got for the child, I determined to wean her. But previous to that her food was made thicker, which made her less fond of the breast, and as she fed very hearty, she never once hankered after it.

Though this was not a stronger child born than her sisters, yet she was always more healthy and thriving while an infant, and never had the least tendency to a looseness, which I cannot help imputing, at least in part, to her having been fed in a different manner.

Having

Having given my opinion in preferring the boat or spoon to the horn in the feeding of children, who are brought up by the hand, I come next to mention the food which I take to be the fittest for them, and the proper times for feeding them.

With regard to the first. While the child is suckled, I think the best food is crumb of bread boiled in soft water, to the consistence of what is commonly called pap, or a thin panada. The bread should not be new baked, and, in general, I think

roll is preferable to loaf bread; because the former is commonly baked with yeast, whereas the latter is said to have allum sometimes mixed with it. But whether it has or not, of this I am certain, that the loaf bread in and near London, grows very soon stale, and so hard, that in a few days after it has been baked, it becomes not eatable.

This pap should be sweetened with soft, or Lisbon sugar, unless the child is of a lax habit of body, in which case the finest loaf sugar should be used; and in this

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case

case too, the pap should be made with biscuit, instead of roll. It should not be made sweeter than new milk; for too much sugar both palls the appetite, and grows sour upon their stomachs.

Before the child is weaned, the victuals should be made thicker, by which means it will become less fond of the breast, and consequently, as was mentioned above, easier to wean.

If the infant is to be bred up by hand from the birth, it ought to have new cow's milk mixed with

its victuals as often as possible, and now and then some of it alone to drink. Asses milk will be still better, when it can be conveniently had, and the parents can afford it.

If the child (whether it is suckled at first, or not) is much troubled with wind, boil a few juniper berries, bruised, or a little ginger, grated, and tied up in a rag, in its pap, and between whiles, give a pap spoonful, or so, of weak pepper-mint water, or sweet fennel-water. This will be still more proper if the child is of a loose habit

habit of body. But if it is costive, it must be kept open with a little manna, or magnesia, mixed with its food from time to time, as occasion requires.

After it is weaned, especially after it comes to be used to thick victuals, it should have now and then, by way of drink, between the times of feeding, water in which a piece of upper crust of bread has been boiled, mixed with an equal quantity of new milk when it can be had; or when this cannot be had, of boiled milk, sweetened with a very little sugar.

When the child comes to be about three or four months old, if the milk victuals be apt to grow sour upon its stomach, it will be right to use weak broth, either of chicken, veal, or mutton, or beef tea as it is called, instead of milk, in its food, or at least it may be fed with this once or twice a day.

About the age of six months, if the child is cool, and not inclined to be fat, you may begin to give it at noon, once in two or three days, a very little bit of the white of the wing of a boiled chicken, minced very small, and
mixed

mixed up into a kind of pap, with some of the broth that the chicken was boiled in, and a good deal of crumb of bread. But when it is at any time inclined to be feverish, it must have nothing of this kind.

At this age too, you may begin to give it a little plain light bread pudding, now and then, for dinner.

About the same age, or rather before, that is, as soon as the child can hold any thing in its hand, the nurse should every morn-

ing give it a piece of the upper crust of a loaf, cut in the shape, and about the size of a large Savoy biscuit, one end of it dipped in its food, or a little milk, and put into its mouth, and the other to be held in its hand. The child will lay and divert itself with this, gnaw and swallow it by degrees, which will not only help to nourish it, but bring a greater quantity of saliva into the mouth, whereby the gums will be softened, and at the same time, by the gentle and repeated friction, the cutting of the teeth will be greatly promoted.

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The victuals should be made fresh twice a day, that is, morning and evening, in winter ; and three times in summer, especially in hot weather, and the milk must never be boiled with the pap, but by itself, and added to the pap every time the child is fed ; otherwise it will curdle, and grow sour on the child's stomach. It can hardly be necessary to mention, that when new milk is made use of, it must not be boiled at all.

As to the times of feeding infants. While they are very young, there can be no regular times fixed ;

ed ; but the few following general rules may be of service. During the first few weeks that the child sucks, when it is not brought up by hand from the birth, if the mother has a good deal of milk, the infant will require very little feeding ; and that chiefly in the night, in case it should be wakeful ; that the mother's rest may not be broke by suckling it. But when it comes to be weaned, it must be fed chiefly in the day-time, and put into the habit of sleeping during the night as soon as possible. At first it should be fed frequently,
and

and only a little at a time; for cramming can never be of service, but hurtful. I wish nurses would observe this more than they commonly do, and make it a general rule, never to force victuals down a child's throat when it refuses them. I have very often observed nurses guilty of this error, and told them the absurdity of it, sometimes to little purpose. But still it is a circumstance very well worth minding, otherwise both the appetite and digestion of the child may in time be much hurt, by the stomach's being repeatedly overcharged.

After

After a child has fasted for a good while, or has had a long sleep, it is right to offer it food, and if it is hungry, there is no sort of question but it will take it ; the only thing to be remembered in this case, is not to give it too much. If it refuses to feed, by no means urge it, but amuse and give it exercise, till the appetite returns.

If the infant is not suckled at all, it must be used from the birth to feed chiefly in the day, so that its sleep may not be disturbed in the night.

The

The following method will greatly contribute towards a child's resting in the night, and though it may appear strange at first to persons who never heard of it before, yet as I have seen it practised with success, I can therefore recommend it. And that is, for the nurse, the last thing she does before she goes to bed, about ten or eleven o'clock, to take up the child, open it before the fire, turn it dry, and feed it, even if it is asleep. I have seen, oftener than once, a child taken up in a sound sleep, eat a hearty mess of victuals, and afterwards break wind two or three

three times, then put into bed again without opening its eyes. The mouth was opened readily enough whenever the boat was put to its lips, till the appetite was satisfied, and no longer. I fancy most children might be soon brought to this by not feeding them from six or seven o'clock in the evening, till the above-mentioned time; and the method here advised is attended with this great advantage, that if they are fed about this time, they seldom want any thing till about five, six, or sometimes seven o'clock in the morning.

As

As to cloathing. They should have nothing tight about them, and as few pins as possible should be used. They ought to be kept rather warm, especially in cold weather, for the first three or four months; because till they arrive at that age, they easily catch cold, which either makes them feverish, or throws them into convulsions or the watery-gripes.

On this account too, nurses ought to be very careful to keep the infants dry; for by soaking long in wet cloaths, they are very apt to catch cold; and besides it is
 very

very weakening and unwholesome in every respect.

For this reason also, whenever the child is turned dry, the cloths which are put to it should be very well dried and aired. I am afraid this circumstance is not always sufficiently attended to, though it is certainly a very material one ; as every body knows the pernicious effects of putting on damp linen, or laying in ill-aired sheets.

These directions ought to be still more carefully attended to whenever the child happens to be loose
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in its body ; in which case the clouts, as soon as they are taken off, ought to be put away at a distance from the child ; or, if the stools are very fetid, quite out of the room ; as being not only offensive, but unwholesome to the infant.

But though I would by all means advise the keeping of infants as dry and clean as possible, through the day, yet I think it better not to open them in the night, if it can be avoided, for fear of giving them cold, and disturbing their rest. In case of a purging, it be-

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comes

comes necessary to open them, in order to turn them dry, in the night, as well as the day ; but then there ought to be a fire kept in the room all night.

If the observation holds good, that very few children belonging to people of fortune die in their infancy, I imagine it must be owing to their having more convenient nurseries, and greater care taken of them in the above-mentioned respects ; the extraordinary encouragement given to the nurses making it their interest to give the children diligent attendance.

The keeping of infants warm, so as to preserve them from catching cold during the few first months, is of so much consequence with regard to their future health and thriving, that the greatest care should be taken in this point. And this makes me imagine that, if the Foundling hospital were to be made a kind of nursery for children till they came to be four or five months old (it would be still better if they could be kept in till the age of nine or twelve months) more lives might be saved by that institution, than perhaps there are at present. For to send new-born

infants to such cold houses, as the nurses in the country that take in such children, generally live in, unless the nurses are extremely careful indeed, is for the most part sending them to an untimely grave ; especially if the place be situated at any considerable distance, and the weather happen to be cold.

In the hospital they would not only have warmer apartments, but the nurses, being under the immediate inspection of proper matrons, would be obliged to be more careful of their charge ; and when the children came to be nine months,

or a year old, that is, past the age when they commonly leave off clouts, they might be sent into the country at much less hazard of their lives ; both from their having more strength to bear the cold they may be exposed to, and likewise from their being less liable to suffer from the carelessness of the nurses in neglecting to keep them dry.

Considering how well the Foundling Hospital is situated, the abovementioned advantages might, in my humble opinion, do more than compensate the dif-

ference of the air between that and the country.

But all this, by the by. I come next to consider the article of sleep.

Every body knows, that the younger children are, provided they are well, the more they are inclined to sleep. The infant having lain so long dormant in its mother's womb, it requires a good while after it is born, for the habit to wear off; and, in general, the more it sleeps at first, the better, if it is but a right sleep, and not
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the inward fits, described in the above Essay. But as in order to prevent these, it ought to be dandled and patted, to make it break wind always after sucking or feeding, so this exercise ought to be continued longer at a time, and more frequently repeated; to rouse the child by degrees, out of this sleepy habit, especially after you begin to use it to thick victuals.

Some infants are more wakeful in the night, than in the day, which is hurtful to themselves, and irksome to those about them; and

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therefore they ought to be broke of it as soon as possible. The safest and most natural way of attaining this end, is by keeping them awake as much as you can throughout the day, and feeding them pretty plentifully about ten or eleven at night. As to opiates, in this case, I reckon them very pernicious, though I am afraid some careless nurses use too much freedom with them, by giving them to children in the day as well as the night, in order to keep them quiet, and prevent their disturbing them in their business.

I believe

I believe it may be taken for granted, that children who are used to a cradle in the day, are the more subject to be wakeful in the night ; which is one reason why I would prefer the bed to the cradle for infants. The rocking of the cradle, together with the nurse's drowsy song, disposes them indeed to sleep, but then they sometimes get into such a habit, that it is with great difficulty they can be made to sleep without those aids. Besides, as most children, when they are well, can be lulled to sleep almost at any time by the motion of the cradle and singing, some
nurses

nurses are apt to take the advantage of this, and studying their own ease more than the health of the infant, they lay it down to sleep immediately after feeding, instead of diverting and giving it exercise as much as possible in the day, both to help to digest its food, and to make it rest the better at night. For when I said, the more an infant sleeps, the better, provided it is but a right sleep, I meant only during the first few weeks, till it gathers strength to bear a little proper exercise. Add to all this, I do not think they are laid so warm and comfortable, nor so much at their ease,

ease, in a cradle, as in a bed ; and the rocking of the former is apt to gather a good deal of wind, which in cold weather must sometimes be hurtful to the infant.

If you intend not to make use of the cradle, the child ought not to be jolted on the knee or lap, which is frequently practised by nurses who attend lying-in women, when their young charge happens to be at any time restless.

This naturally leads me to the subject of exercise, which is the
next

next thing I shall consider in the nursing of children.

Infants, however thriving they may be, for the first few months after they are born have not strength to use any exercise themselves, except that of crying, when they are hungry or in pain, and kicking and pulling up their feet when they are griped ; both which must be looked upon rather as symptoms of distress, than salutary exercises. Upon their nurses, therefore, they must depend at first, for proper exercise ; and next to suckling or feeding them, and keeping them
dry

dry and clean, as has already been directed, there is nothing so conducive to their thriving as this.

The first exercise I shall mention proper for infants, is dandling, which is certainly of service to divert them, and keep them awake; but then it should be done very gently for a good while at first, and never with a jerk. Neither should they be hoisted up high in the air between the hands, as some people heedlessly do; for they begin very early to be susceptible of fear, much sooner than persons not accustomed to them would
 imagine.

imagine. It is true they may be brought to bear pretty hearty shaking, swinging, and even jolting, by degrees ; and all this is of service, when they have strength to undergo it ; nay, when the child bears it well, we reckon it a good sign that it is thriving, and has been well nursed ; but it should be done very gradually, and not attempted too soon. I have seen an infant almost thrown into fits, from a sudden swing given to it by one not used to young children. And how often do we see them start violently, and fall a crying, if there happen to be any sharp sudden noise made

made near them ; in consequence of the weakness and sensibility of their nerves.

But the most useful exercise for very young infants, is rubbing with the hand ; which cannot be too often repeated, nor continued too long at a time. They should be well rubbed all over, before the fire, twice a day at least, that is, morning and evening, when they are dressed and undressed ; and the rubbing should be repeated from the loins downwards, every time they are turned dry, unless they have a purging, when it
might

might fatigue them too much to have it done so often. There is nothing that infants in general seem more delighted with than this exercise, and it were to be wished, that the nurses would indulge them more in it. It will frequently make them quiet when nothing else will; and it is not only very pleasing to them, but conduces greatly to make them thrive, and to prevent their catching cold, by promoting a free circulation and perspiration likewise: Providence having kindly connected the agreeable sensation and the benefit.

Another

Another good preservative against their catching cold is, for the nurse, every morning when she dresses the child, having first of all well rubbed it, to wash its back, loins, groins, and between its thighs, as also its limbs all over, with cold water, and afterwards to dry them carefully. The head and behind the ears, the neck, arms and hands, should be washed in the same manner and dried. If she observes that the skin seems anywhere to be chafed, after dabbling the part very well with cold water, and drying it gently with a fine cloth, let her apply some common powder to it, by means of a soft
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puff. But if much galled, from the heat and sharpness of the urine, which will sometimes happen about the time of teething, especially to fat children, she must take some fuller's earth, dissolved in a sufficient quantity of hot water ; let it stand till it is cold, and rub it gently upon the parts galled, once or twice a day. It is a very common thing to make use of cerus in this case ; but as lead, in whatever shape you use it, is allowed to be hurtful to the nerves, and the other answers the purpose altogether as well, without any danger attending it, I would therefore prefer it.

In most infants, sooner or later, there is a discharge from behind the ears, which at first oozes out in the form of sweat, or a very thin lymph, and afterwards increases in quantity, becomes of a thicker consistence, and sometimes very acrid, so as to gall the neighbouring parts, and be very troublesome, especially at the time of teething.

When this discharge is moderate, it should rather be encouraged than checked; and it will be sufficient for the nurse, every morning, to wash and clean the part well with cold water, and afterwards to rub
it

it pretty hard with a dry cloth. But if the discharge is too plentiful, a bit of singed linen rag, such as the nurses commonly use for this purpose, will be sufficient to restrain it; for I do not think it safe to dry it up, or even to check it too hastily.

These are the most material rules that occur to me to be observed in dry-nursing: and it is obvious that most of them are equally applicable to the management of children upon the breast.

F I N I S.



